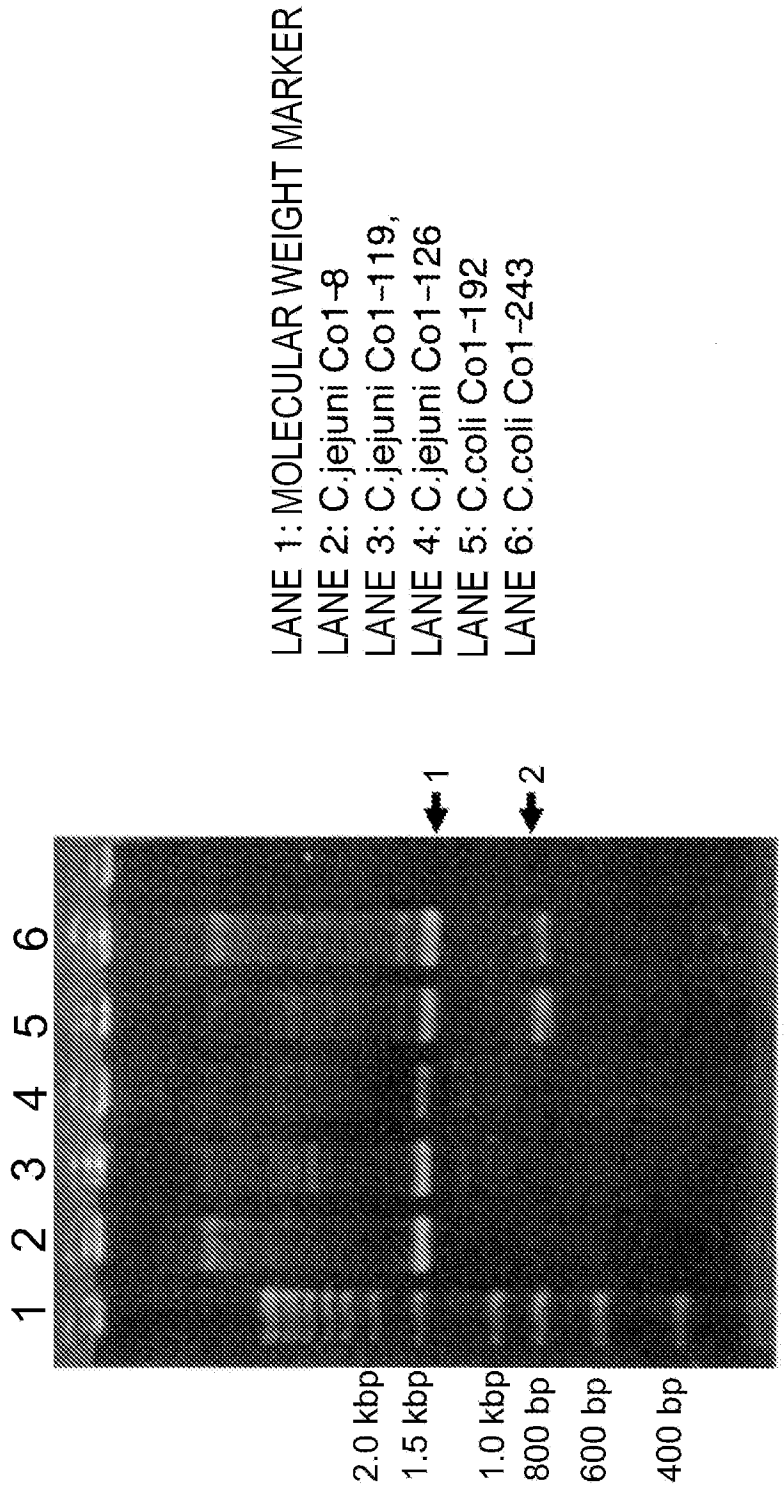

LANE 1: MOLECULAR WEIGHT MARKER
LANE 2: C.jejuni Co1-8
LANE 3: C.jejuni Co1-119,
LANE 4: C.jejuni Co1-126
LANE 5: C.coli Co1-192
LANE 6: C.coli Co1-243
1 2 3 4 5 6
1
2
2.0 kbp
1.5 kbp
1.0 kbp
800 bp
600 bp
400 bp

FIG. 1

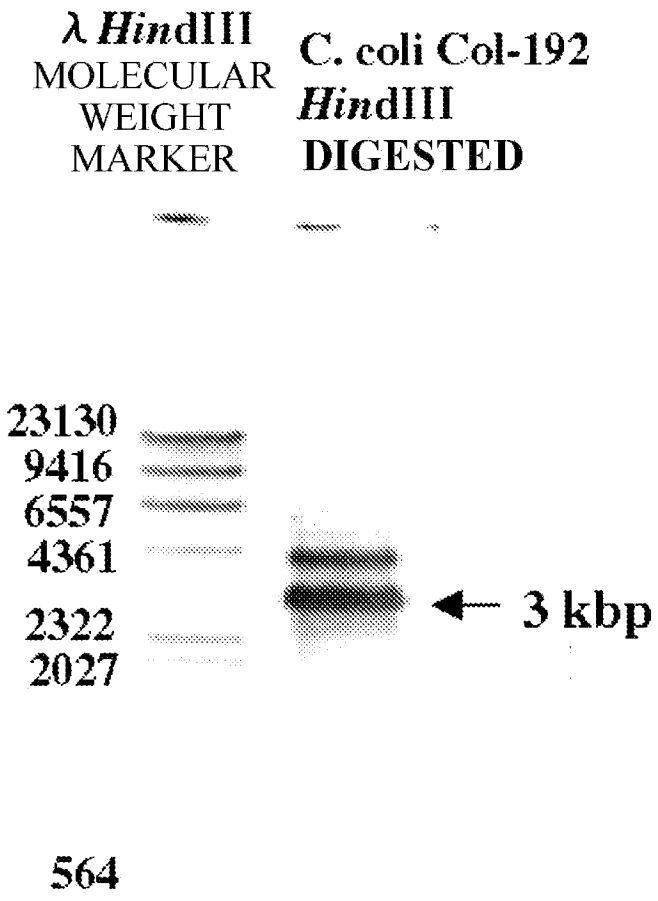

λ HindIII
MOLECULAR
WEIGHT
MARKER
C. coli Col-192
HindIII
DIGESTED
23130
9416
6557
4361
2322
2027
564
3 kbp

FIG. 2

LANE 1: MOLECULAR WEIGHT MARKER
LANE 2: *C.jejuni* Co1-8
LANE 3: *C.jejuni* Co1-119
LANE 4: *C.jejuni* Co1-126
LANE 5: *C.coli* Co1-192
LANE 6: *C.coli* Co1-243

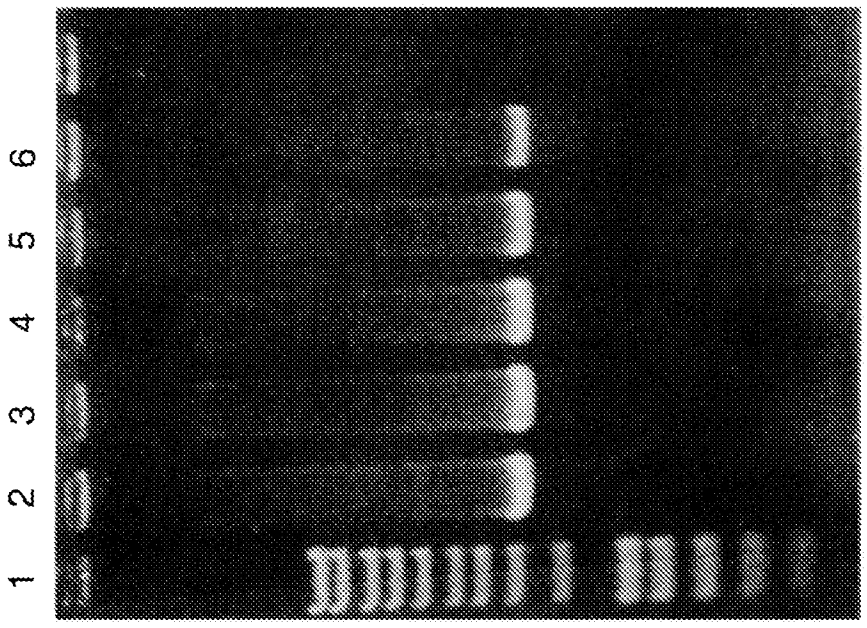


FIG. 3

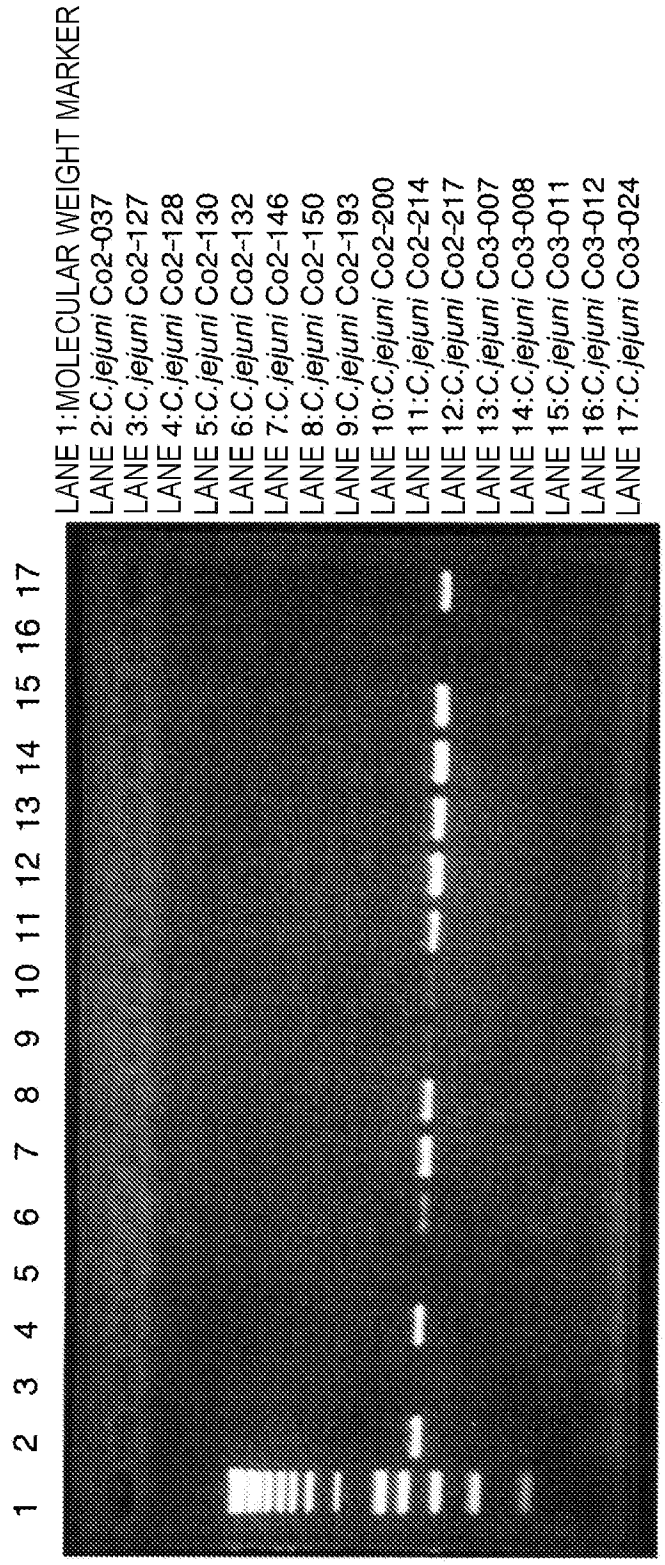

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
LANE 1:MOLECULAR WEIGHT MARKER
LANE 2:C.jejuni Co2-037
LANE 3:C.jejuni Co2-127
LANE 4:C.jejuni Co2-128
LANE 5:C.jejuni Co2-130
LANE 6:C.jejuni Co2-132
LANE 7:C.jejuni Co2-146
LANE 8:C.jejuni Co2-150
LANE 9:C.jejuni Co2-193
LANE 10:C.jejuni Co2-200
LANE 11:C.jejuni Co2-214
LANE 12:C.jejuni Co2-217
LANE 13:C.jejuni Co3-007
LANE 14:C.jejuni Co3-008
LANE 15:C.jejuni Co3-011
LANE 16:C.jejuni Co3-012
LANE 17:C.jejuni Co3-024

FIG. 4

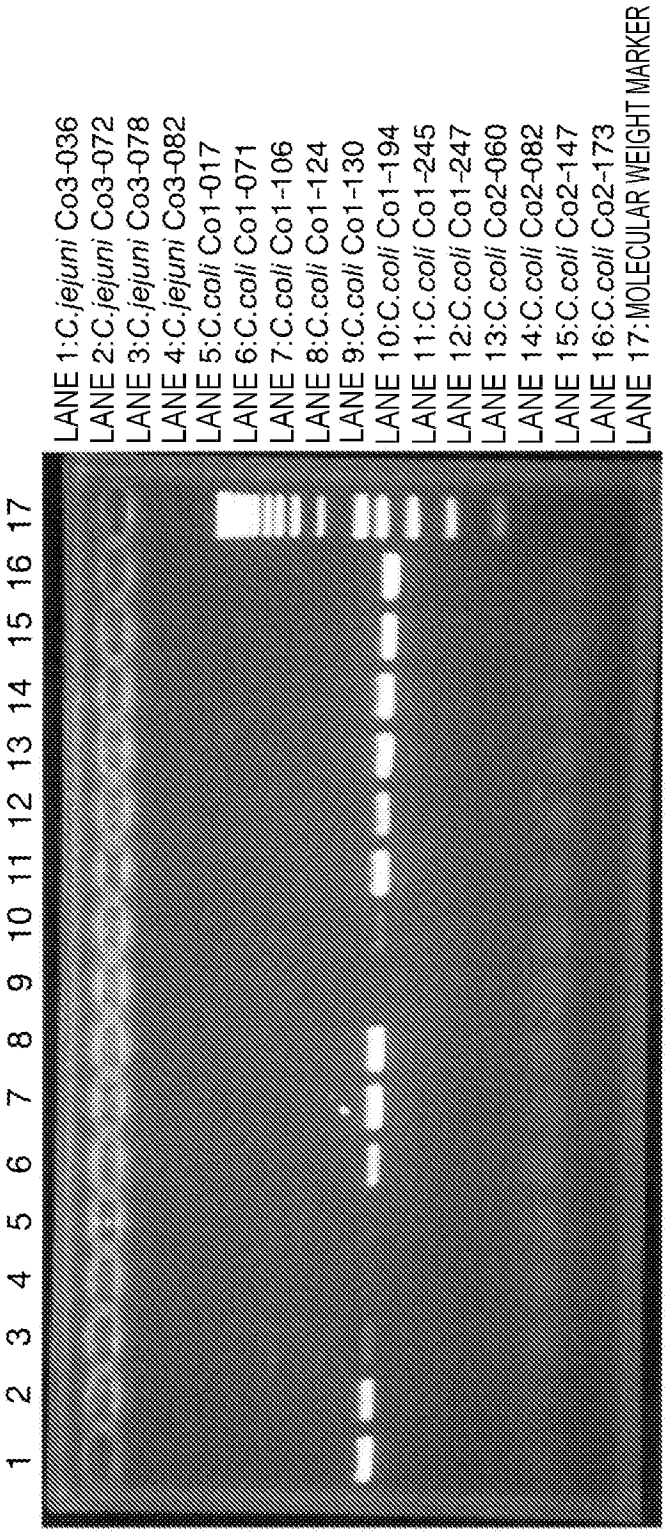

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
LANE 1:C.jejuni Co3-036
LANE 2:C.jejuni Co3-072
LANE 3:C.jejuni Co3-078
LANE 4:C.jejuni Co3-082
LANE 5:C.coli Co1-017
LANE 6:C.coli Co1-071
LANE 7:C.coli Co1-106
LANE 8:C.coli Co1-124
LANE 9:C.coli Co1-130
LANE 10:C.coli Co1-194
LANE 11:C.coli Co1-245
LANE 12:C.coli Co1-247
LANE 13:C.coli Co2-060
LANE 14:C.coli Co2-082
LANE 15:C.coli Co2-147
LANE 16:C.coli Co2-173
LANE 17:MOLECULAR WEIGHT MARKER

FIG. 5

LANE 1:MOLECULAR WEIGHT MARKER
LANE 2:*C.coli* Co2-215
LANE 3:*C.coli* Co2-218
LANE 4:*C.coli* Co3-134
LANE 5:*C.jejuni* Co1-8
LANE 6:*C.coli* Co1-192
LANE 7:*C.fetus* Co1-187
LANE 8:*E.coli* JM109

FIG. 6

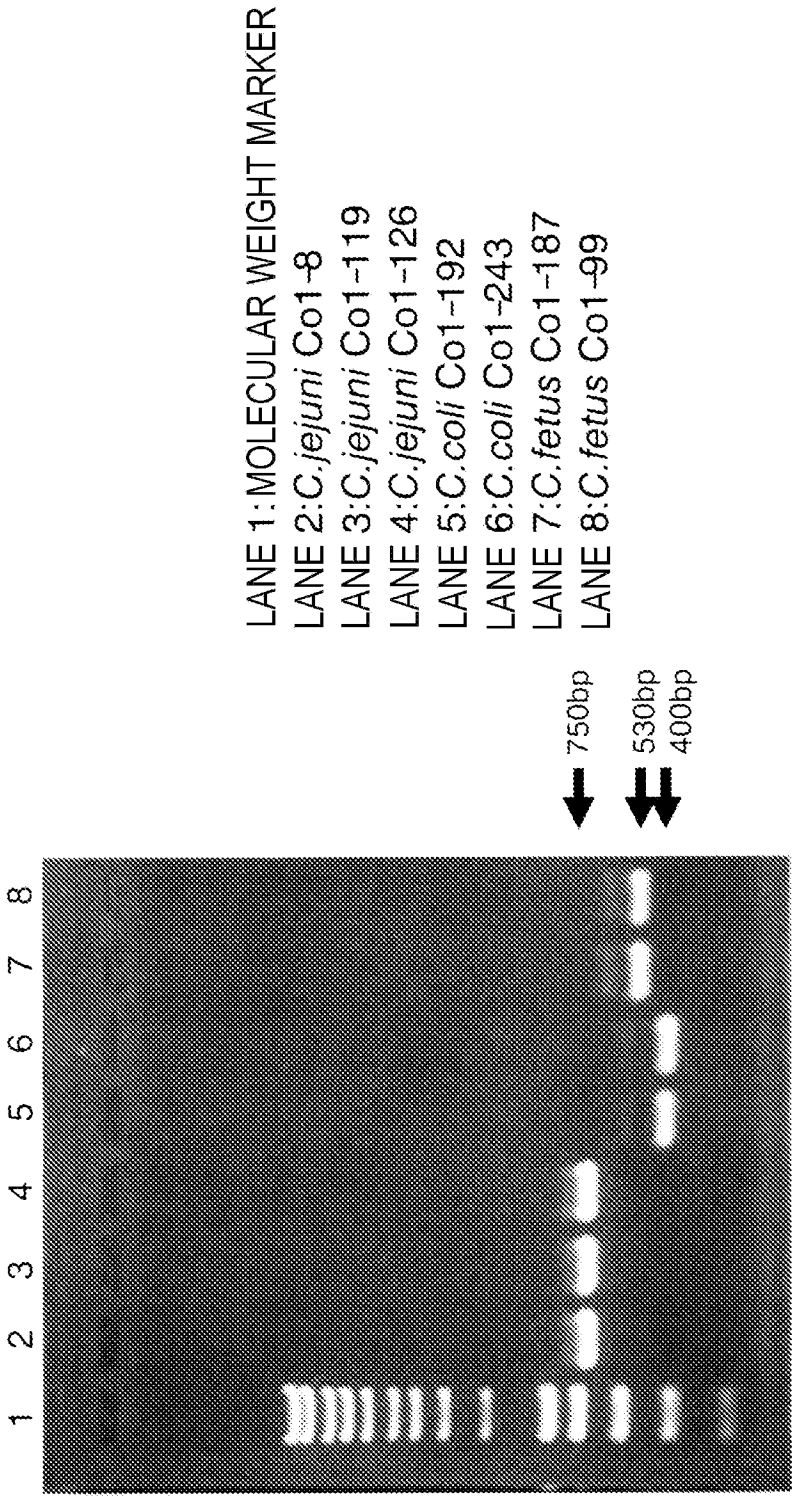

LANE 1: MOLECULAR WEIGHT MARKER
LANE 2: C.jejuni Co1-8
LANE 3: C.jejuni Co1-119
LANE 4: C.jejuni Co1-126
LANE 5: C.coli Co1-192
LANE 6: C.coli Co1-243
LANE 7: C.fetus Co1-187
LANE 8: C.fetus Co1-99
750bp
530bp
400bp
1 2 3 4 5 6 7 8

FIG. 7

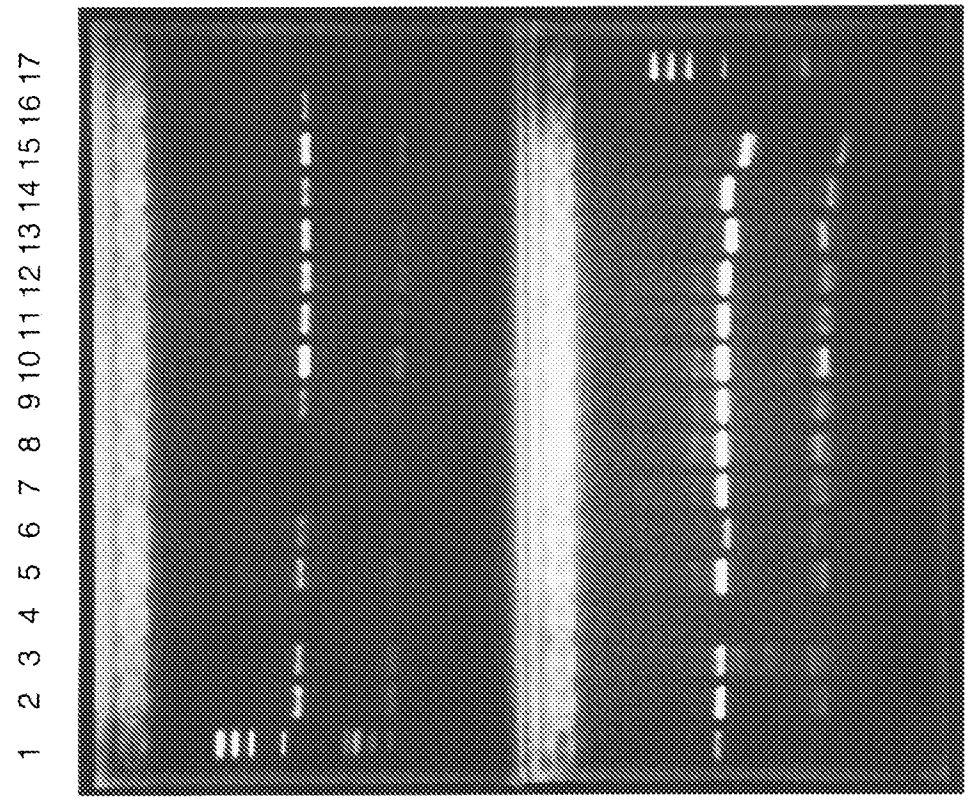

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 34
LANE 1: MOLECULAR WEIGHT MARKER
LANE 2: C.jejuni Co2-037
LANE 3: C.jejuni Co2-128
LANE 4: C.jejuni Co2-132
LANE 5: C.jejuni Co2-146
LANE 6: C.jejuni Co2-150
LANE 7: C.jejuni Co2-193
LANE 8: C.jejuni Co2-200
LANE 9: C.jejuni Co2-214
LANE 10: C.jejuni Co2-217
LANE 11: C.jejuni Co3-007
LANE 12: C.jejuni Co3-008
LANE 13: C.jejuni Co3-011
LANE 14: C.jejuni Co3-024
LANE 15: C.jejuni Co3-036
LANE 16: C.jejuni Co3-072
LANE 17: C.jejuni Co3-078
LANE 18: C.coli Co1-071
LANE 19: C.coli Co1-106
LANE 20: C.coli Co1-124
LANE 21: C.coli Co1-194
LANE 22: C.coli Co1-245
LANE 23: C.coli Co1-247
LANE 24: C.coli Co2-060
LANE 25: C.coli Co2-082
LANE 26: C.coli Co2-147
LANE 27: C.coli Co2-173
LANE 28: C.coli Co2-215
LANE 29: C.coli Co2-218
LANE 30: C.jejuni Col-8
LANE 31: C.coli Col-192
LANE 32: C.fetus Col-187
LANE 34: MOLECULAR WEIGHT MARKER

FIG. 8

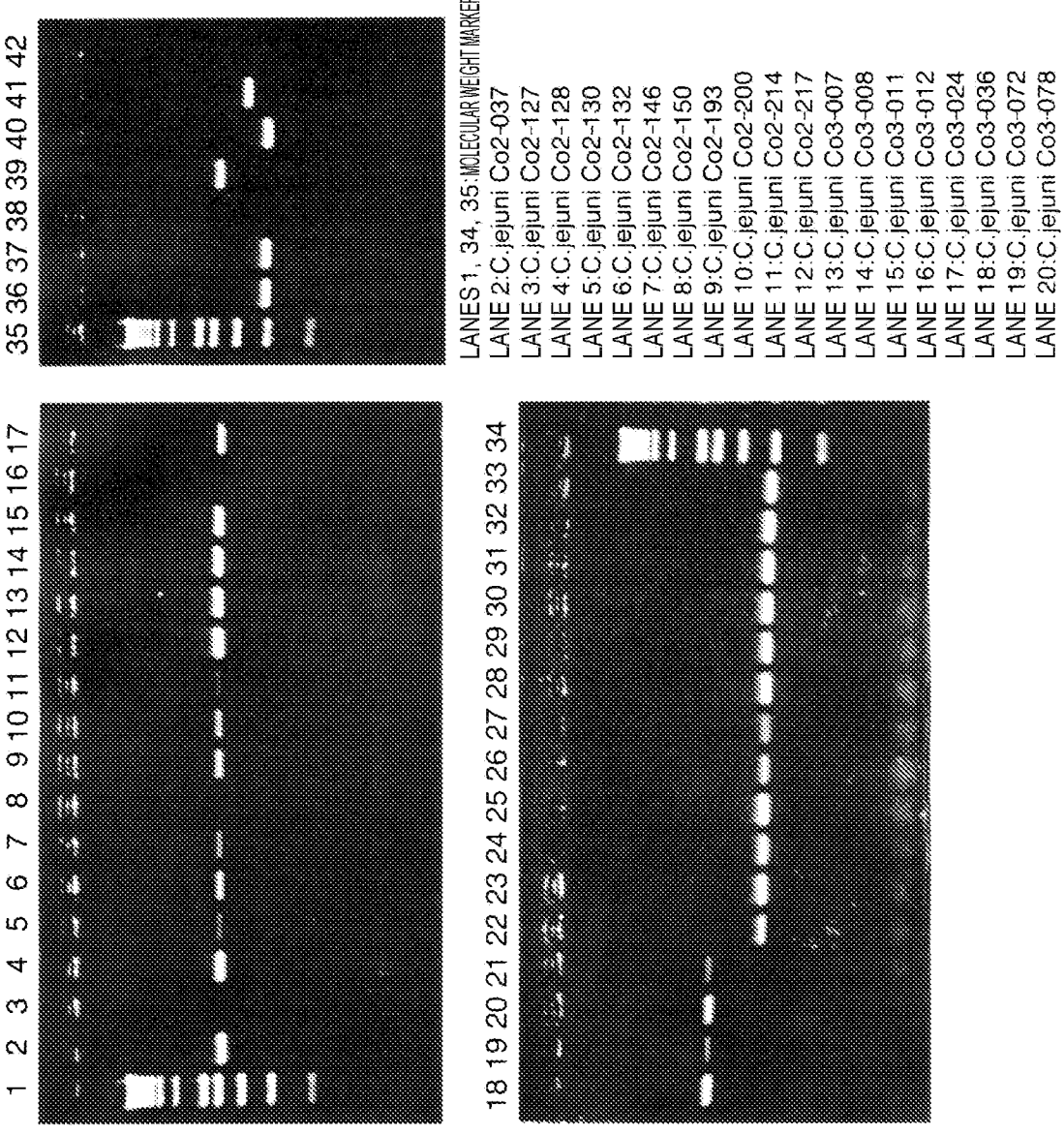

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34
35 36 37 38 39 40 41 42
1 : 750bp
2 : 530bp
3 : 400bp
LANES 1, 34, 35: MOLECULAR WEIGHT MARKER
LANE 2: C.jejuni Co2-037
LANE 3: C.jejuni Co2-127
LANE 4: C.jejuni Co2-128
LANE 5: C.jejuni Co2-130
LANE 6: C.jejuni Co2-132
LANE 7: C.jejuni Co2-146
LANE 8: C.jejuni Co2-150
LANE 9: C.jejuni Co2-193
LANE 10: C.jejuni Co2-200
LANE 11: C.jejuni Co2-214
LANE 12: C.jejuni Co2-217
LANE 13: C.jejuni Co3-007
LANE 14: C.jejuni Co3-008
LANE 15: C.jejuni Co3-011
LANE 16: C.jejuni Co3-012
LANE 17: C.jejuni Co3-024
LANE 18: C.jejuni Co3-036
LANE 19: C.jejuni Co3-072
LANE 20: C.jejuni Co3-078
LANE 21: C.jejuni Co3-082
LANE 22: C.coli Co1-017
LANE 23: C.coli Co1-071
LANE 24: C.coli Co1-106
LANE 25: C.coli Co1-124
LANE 26: C.coli Co1-130
LANE 27: C.coli Co1-194
LANE 28: C.coli Co1-245
LANE 29: C.coli Co1-247
LANE 30: C.coli Co2-060
LANE 31: C.coli Co2-082
LANE 32: C.coli Co2-147
LANE 33: C.coli Co2-173
LANE 36: C.coli Co2-215,
LANE 37: C.coli Co2-218
LANE 38: C.coli Co3-134
LANE 39: C.jejuni Col-8
LANE 40: C.coli Col-192
LANE 41: C.fetus Col-187
LANE 42: E coli JM109

FIG. 9

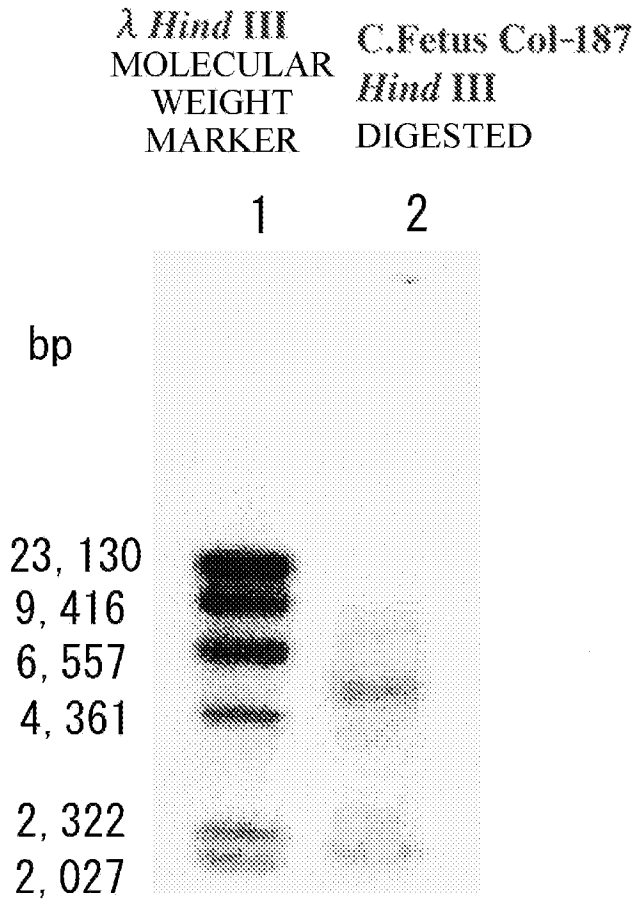

λ Hind III
MOLECULAR
WEIGHT
MARKER
C.Fetus Col-187
Hind III
DIGESTED
1
2
bp
23, 130
9, 416
6, 557
4, 361
2, 322
2, 027

FIG. 10

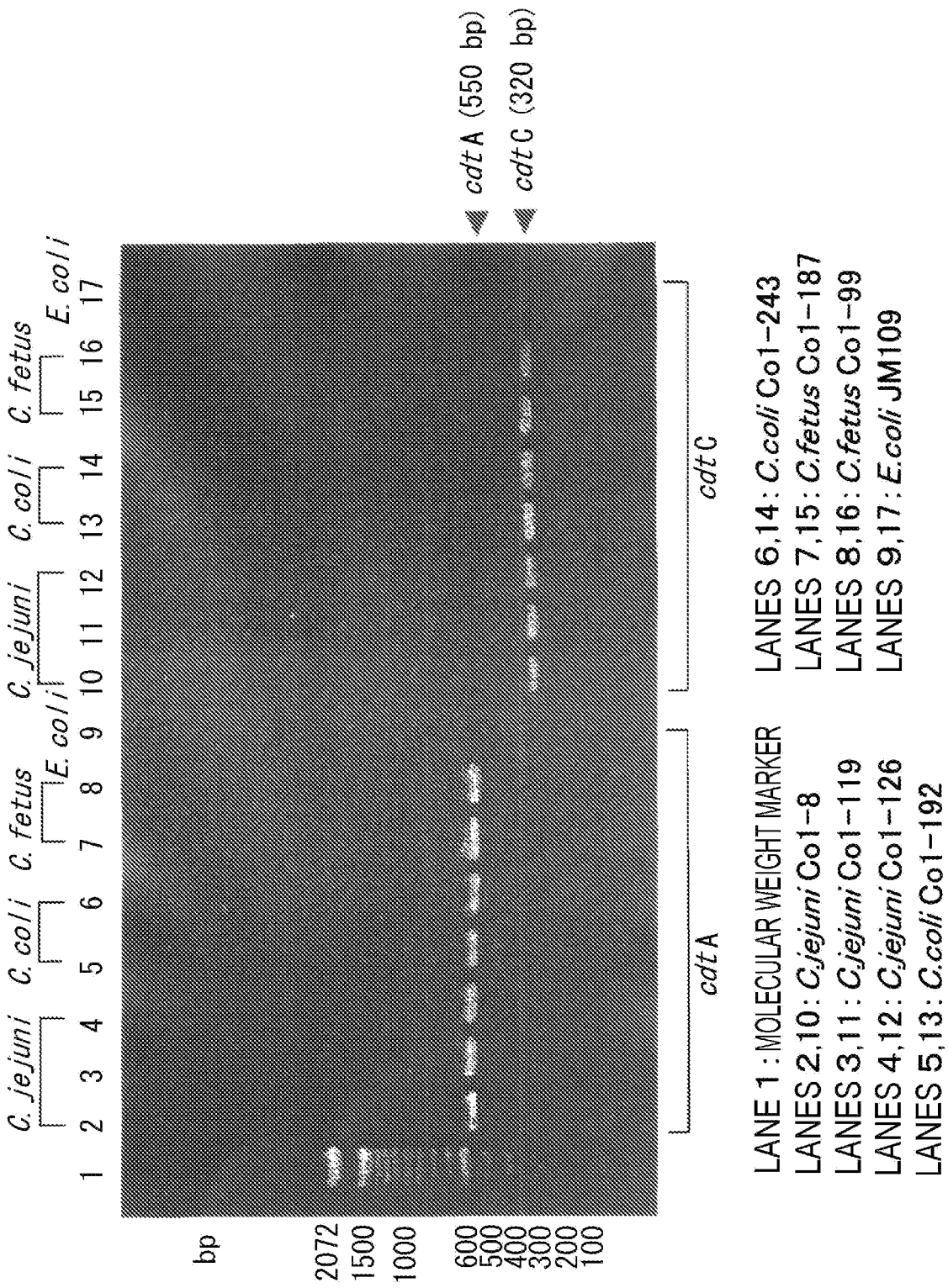
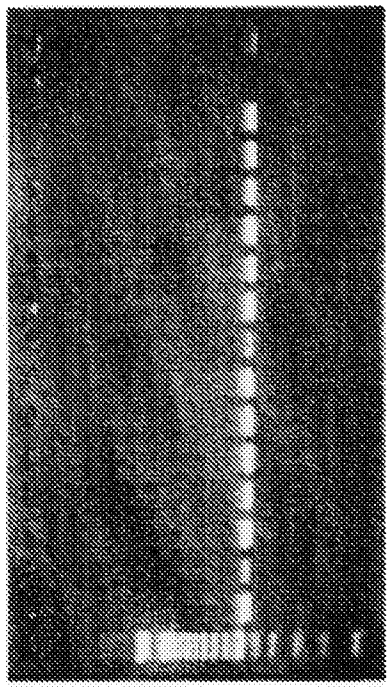
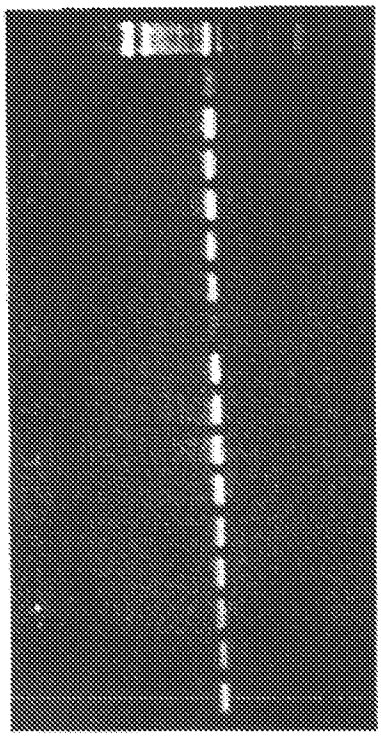
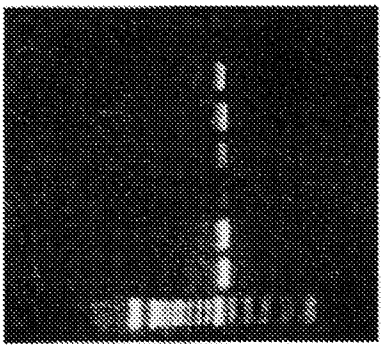

C. jejuni
C. coli
C. fetus
E. coli
C. jejuni
C. coli
C. fetus
E. coli
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
bp
2072
1500
1000
600
500
400
300
200
100
cdtA (550 bp)
cdtC (320 bp)
cdtA
cdtC
LANE 1 : MOLECULAR WEIGHT MARKER
LANES 2,10 : C.jejuni Co1-8
LANES 3,11 : C.jejuni Co1-119
LANES 4,12 : C.jejuni Co1-126
LANES 5,13 : C.coli Co1-192
LANES 6,14 : C.coli Co1-243
LANES 7,15 : C.fetus Co1-187
LANES 8,16 : C.fetus Co1-99
LANES 9,17 : E.coli JM109

FIG. 11







LANES 1,34,35 : MOLECULAR WEIGHT MARKER
LANE 2 : *C.jejuni* Co2-037
LANE 3 : *C.jejuni* Co2-127
LANE 4 : *C.jejuni* Co2-128
LANE 5 : *C.jejuni* Co2-130
LANE 6 : *C.jejuni* Co2-132
LANE 7 : *C.jejuni* Co2-146
LANE 8 : *C.jejuni* Co2-150
LANE 9 : *C.jejuni* Co2-193
LANE 10 : *C.jejuni* Co2-200
LANE 11 : *C.jejuni* Co2-214
LANE 12 : *C.jejuni* Co2-217
LANE 13 : *C.jejuni* Co3-007
LANE 14 : *C.jejuni* Co3-008
LANE 15 : *C.jejuni* Co3-011
LANE 16 : *C.jejuni* Co3-012
LANE 17 : *C.jejuni* Co3-024
LANE 18 : *C.jejuni* Co3-036
LANE 19 : *C.jejuni* Co3-072
LANE 20 : *C.jejuni* Co3-078
LANE 21 : *C.jejuni* Co3-082
LANE 22 : *C.coli* Co1-017
LANE 23 : *C.coli* Co1-071
LANE 24 : *C.coli* Co1-106
LANE 25 : *C.coli* Co1-124
LANE 26 : *C.coli* Co1-130
LANE 27 : *C.coli* Co1-194
LANE 28 : *C.coli* Co1-245
LANE 29 : *C.coli* Co1-247
LANE 30 : *C.coli* Co2-060
LANE 31 : *C.coli* Co2-082
LANE 32 : *C.coli* Co2-147
LANE 33 : *C.coli* Co2-173
LANE 36 : *C.coli* Co2-215
LANE 37 : *C.coli* Co2-218
LANE 38 : *C.coli* Co3-134
LANE 39 : *C.jejuni* Col-8
LANE 40 : *C.coli* Col-192
LANE 41 : *C.fetus* Col-187
LANE 42 : *E.coli* JM109

FIG. 12

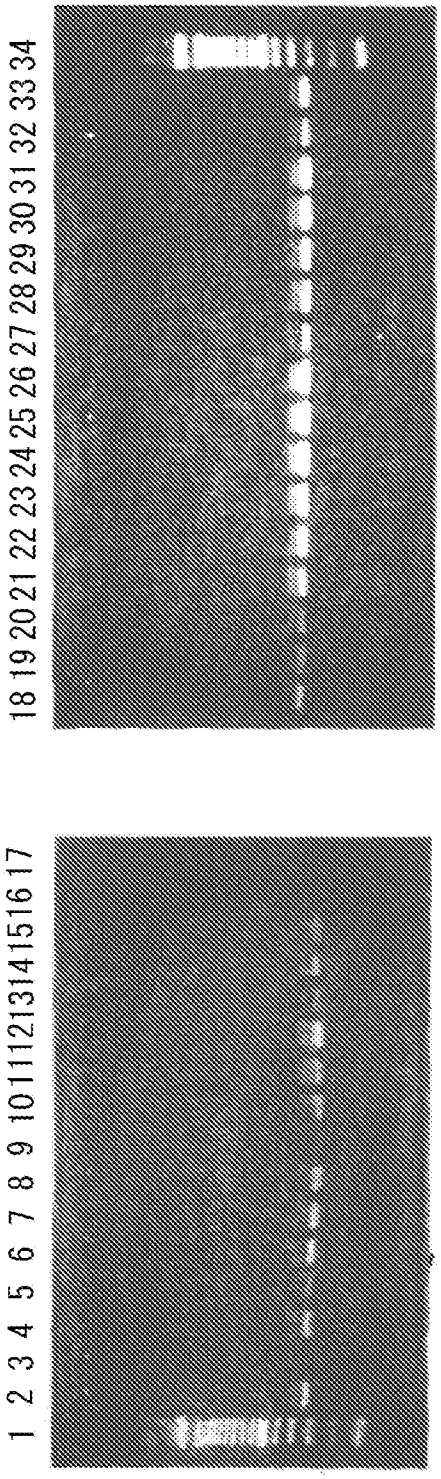

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34
35 36 37 38 39 40 41 42
LANES 1,34,35 : MOLECULAR WEIGHT MARKER
LANE 2 : C.jejuni Co2-037
LANE 3 : C.jejuni Co2-127
LANE 4 : C.jejuni Co2-128
LANE 5 : C.jejuni Co2-130
LANE 6 : C.jejuni Co2-132
LANE 7 : C.jejuni Co2-146
LANE 8 : C.jejuni Co2-150
LANE 9 : C.jejuni Co2-193
LANE 10 : C.jejuni Co2-200
LANE 11 : C.jejuni Co2-214
LANE 12 : C.jejuni Co2-217
LANE 13 : C.jejuni Co3-007
LANE 14 : C.jejuni Co3-008
LANE 15 : C.jejuni Co3-011
LANE 16 : C.jejuni Co3-012
LANE 17 : C.jejuni Co3-024
LANE 18 : C.jejuni Co3-036
LANE 19 : C.jejuni Co3-072
LANE 20 : C.jejuni Co3-078
LANE 21 : C.jejuni Co3-082
LANE 22 : C.coli Co1-017
LANE 23 : C.coli Co1-071
LANE 24 : C.coli Co1-106
LANE 25 : C.coli Co1-124
LANE 26 : C.coli Co1-130
LANE 27 : C.coli Co1-194
LANE 28 : C.coli Co1-245
LANE 29 : C.coli Co1-247
LANE 30 : C.coli Co2-060
LANE 31 : C.coli Co2-082
LANE 32 : C.coli Co2-147
LANE 33 : C.coli Co2-173
LANE 36 : C.coli Co2-215
LANE 37 : C.coli Co2-218
LANE 38 : C.coli Co3-134
LANE 39 : C.jejuni Col-8
LANE 40 : C.coli Col-192
LANE 41 : C.fetus Col-187
LANE 42 : E.coli JM109

FIG. 13

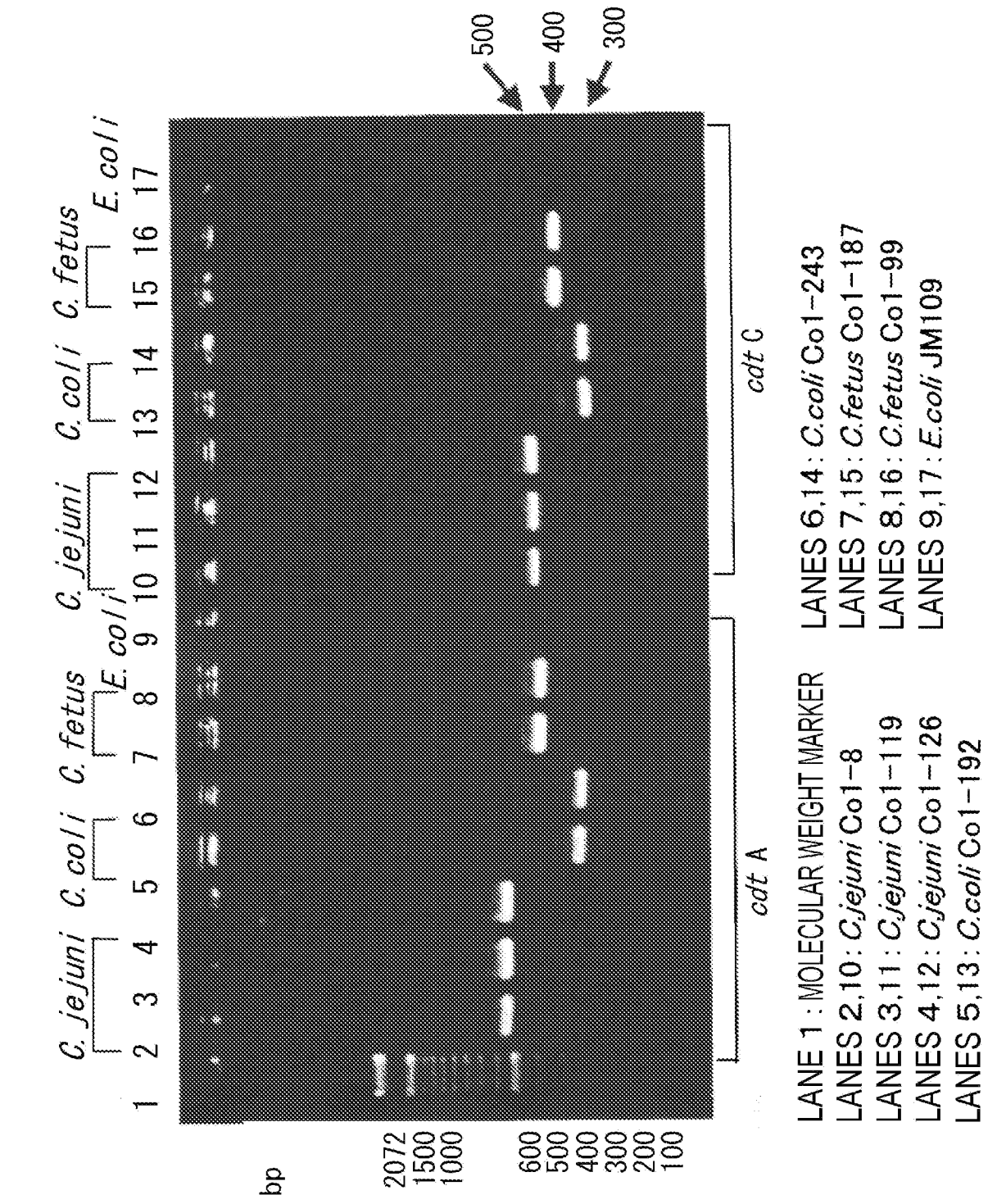

C. jejuni
C. coli
C. fetus
E. coli
C. jejuni
C. coli
C. fetus
E. coli
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
500
400
300
bp
2072
1500
1000
600
500
400
300
200
100
cdt A
cdt C
LANE 1 : MOLECULAR WEIGHT MARKER
LANES 2,10 : C.jejuni Co1-8
LANES 3,11 : C.jejuni Co1-119
LANES 4,12 : C.jejuni Co1-126
LANES 5,13 : C.coli Co1-192
LANES 6,14 : C.coli Co1-243
LANES 7,15 : C.fetus Co1-187
LANES 8,16 : C.fetus Co1-99
LANES 9,17 : E.coli JM109

FIG. 14

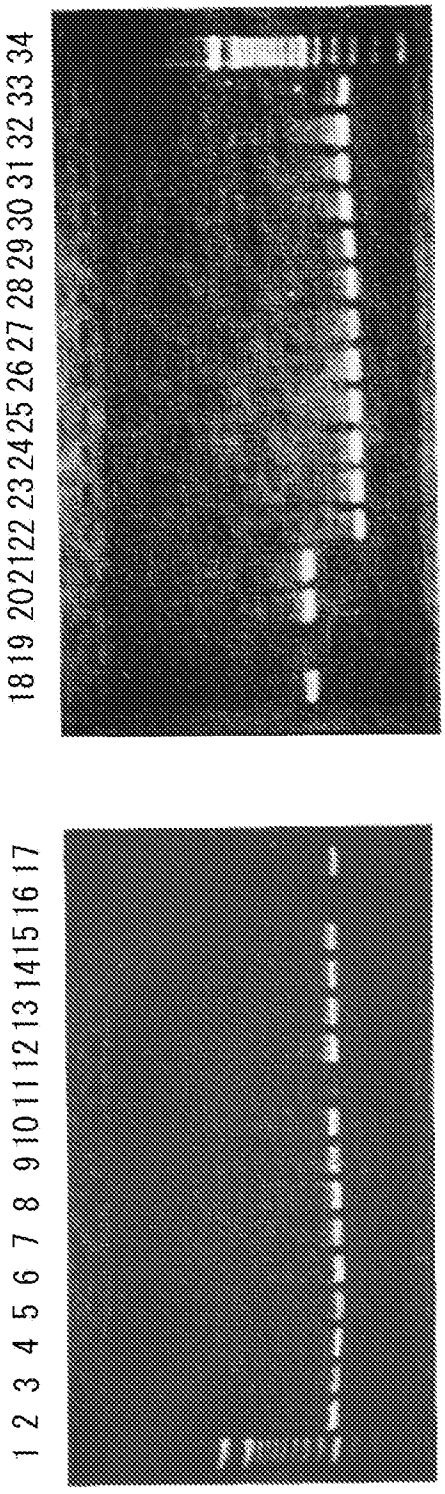

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34
35 36 37 38 39 40 41 42
LANES 1,34,35 : MOLECULAR WEIGHT MARKER
LANE 2 : C.jejuni Co2-037
LANE 3 : C.jejuni Co2-127
LANE 4 : C.jejuni Co2-128
LANE 5 : C.jejuni Co2-130
LANE 6 : C.jejuni Co2-132
LANE 7 : C.jejuni Co2-146
LANE 8 : C.jejuni Co2-150
LANE 9 : C.jejuni Co2-193
LANE 10 : C.jejuni Co2-200
LANE 11 : C.jejuni Co2-214
LANE 12 : C.jejuni Co2-217
LANE 13 : C.jejuni Co3-007
LANE 14 : C.jejuni Co3-008
LANE 15 : C.jejuni Co3-011
LANE 16 : C.jejuni Co3-012
LANE 17 : C.jejuni Co3-024
LANE 18 : C.jejuni Co3-036
LANE 19 : C.jejuni Co3-072
LANE 20 : C.jejuni Co3-078
LANE 21 : C.jejuni Co3-082
LANE 22 : C.coli Co1-017
LANE 23 : C.coli Co1-071
LANE 24 : C.coli Co1-106
LANE 25 : C.coli Co1-124
LANE 26 : C.coli Co1-130
LANE 27 : C.coli Co1-194
LANE 28 : C.coli Co1-245
LANE 29 : C.coli Co1-247
LANE 30 : C.coli Co2-060
LANE 31 : C.coli Co2-082
LANE 32 : C.coli Co2-147
LANE 33 : C.coli Co2-173
LANE 36 : C.coli Co2-215
LANE 37 : C.coli Co2-218
LANE 38 : C.coli Co3-134
LANE 39 : C.jejuni Col-8
LANE 40 : C.coli Col-192
LANE 41 : C.fetus Col-187
LANE 42 : E.coli JM109

FIG. 15

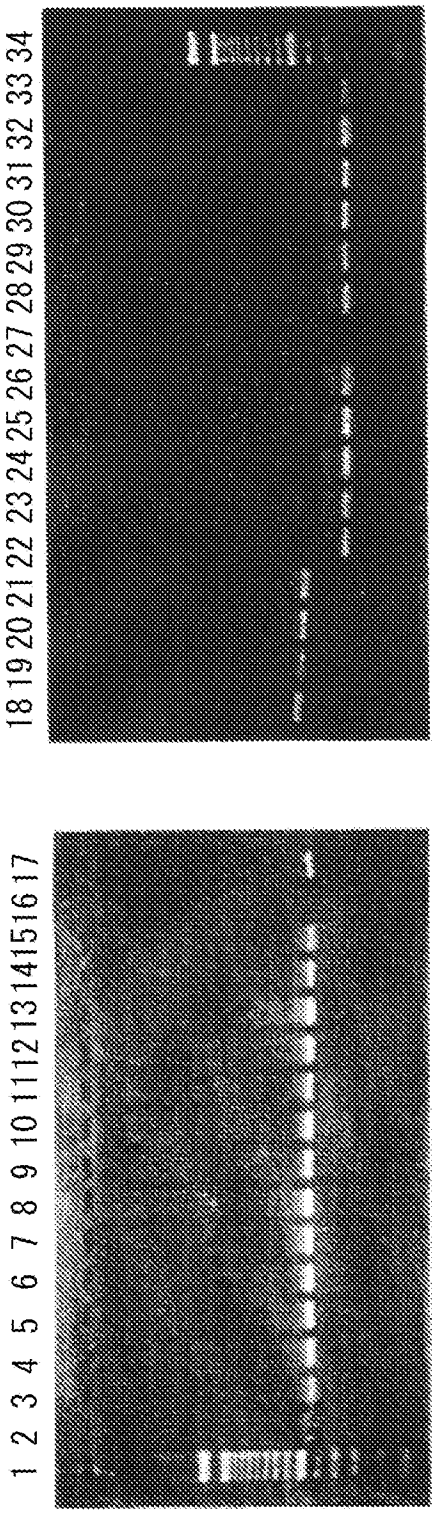

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34
35 36 37 38 39 40 41 42
LANES 1,34,35 : MOLECULAR WEIGHT MARKER
LANE 2 : C.jejuni Co2-037
LANE 3 : C.jejuni Co2-127
LANE 4 : C.jejuni Co2-128
LANE 5 : C.jejuni Co2-130
LANE 6 : C.jejuni Co2-132
LANE 7 : C.jejuni Co2-146
LANE 8 : C.jejuni Co2-150
LANE 9 : C.jejuni Co2-193
LANE 10 : C.jejuni Co2-200
LANE 11 : C.jejuni Co2-214
LANE 12 : C.jejuni Co2-217
LANE 13 : C.jejuni Co3-007
LANE 14 : C.jejuni Co3-008
LANE 15 : C.jejuni Co3-011
LANE 16 : C.jejuni Co3-012
LANE 17 : C.jejuni Co3-024
LANE 18 : C.jejuni Co3-036
LANE 19 : C.jejuni Co3-072
LANE 20 : C.jejuni Co3-078
LANE 21 : C.jejuni Co3-082
LANE 22 : C.coli Co1-017
LANE 23 : C.coli Co1-071
LANE 24 : C.coli Co1-106
LANE 25 : C.coli Co1-124
LANE 26 : C.coli Co1-130
LANE 27 : C.coli Co1-194
LANE 28 : C.coli Co1-245
LANE 29 : C.coli Co1-247
LANE 30 : C.coli Co2-060
LANE 31 : C.coli Co2-082
LANE 32 : C.coli Co2-147
LANE 33 : C.coli Co2-173
LANE 36 : C.coli Co2-215
LANE 37 : C.coli Co2-218
LANE 38 : C.coli Co3-134
LANE 39 : C.jejuni Col-8
LANE 40 : C.coli Col-192
LANE 41 : C.fetus Col-187
LANE 42 : E.coli JM109

FIG. 16

C. jejuni cdt ORF

ATGCAAAAAATTATAGTTTTTATTTTATGTTGTTTTATGACTTTTTTTCTTTATGCATGTTCTTCTAAATTTGAAAATGT
AAATCCTTTGGGGCGTTCATTTGGAGAATTT$_{64}$GAAGATACTGATCCTTTAAAACT$_{7}$AGGACTTGAACCTACTTTTC$_{68}$CT
ACCAATCAAGAAATTCCAAGTTTAATTAGCGGTGCTGATTTAGTACCTATTACTCCTATTACCCCACCTTTAACTAGAAC
AAGCAATAGTGCCAACAATAATGCAGCAAATGGGATCAATCCTCGCTTTAAAGACGAAGCTTTTAATGATGTTTTAATTT
TTGAAAATCGCCCTGCGGTTTCTGATTTTTTAACCATTTTAGGCCCTAGCGGAGCAGCTTTAACGGTTTGGGCTTTAGCA
CAAGGAAATTGGATTTGGGGCTATACTTTAATCGATAGCAAAGGATTTGGCGATGCTAGAGTTTGGCAACTTTTGCTTTA
TCCTAATGATTTTGCAATGATTAAAAATGCCAAAACCAATACTTGTCTTAATGCTTATGGTAATGGAATTGTCCATTATC
CTTGTGATGCAAGCAATCACGCACAAATGTGGAAACTTATCCCTATGAGCAATACAGCGGTTCAAATTAAAAATTTAGGA
AATGGAAAA$_{65}$TGCATACAAGCACCTATTACAAATCTTTATGGTGATTTTCACAAGGTTTTTAAAATTTTTACCGTAGAG
TGTGCAAAAAAAGATAATTTTGATCAACAAT$_{69}$GGTTTTTAACTACTCCGCCTTTTACCGCA$_{11}$AAACCTTTATATCGCCA
AGGAGAGGTACGATGAAAAAAATTATATGTTTATTTTTATC$_{17}$TTTTAACCTTGCTTTTGCAAATTTAGAAAATTTTAAT
GTTGGCACTTGGAATTTGCAAGGC$_{9}$TCATCCGCAGCCACAGAAAGCAAATGGA$_{18}$GTGTTAGTGTAAGACAACTTGTAAGT
GGAGCAAACCCCTTAGATATCTTAATGATAC$_{26}$AAGAAGCAGGAACTTTACCAAGAAC$_{29}$AGCCACTCCAACAGGACGCC$_{19}$
ATGTGCAACAAGGTGGAACACC$_{27}$TATTGATGAATATGAGTGGAATTTAGG$_{20}$AACTCTTTCAAGGCCTGATAGGGTTTTT
ATTTATTATTCTCGCGTTGATGTAGGAG$_{48}$CTAATCGTGTAAATTTAGCTATAGTTTCAAGAATGCAAGCTGAA$_{21}$GAAGT
GATTGTTTTACCTCCACCTACTACAGTTTCAAGACCCATTATAGGAATTCGCAATGGAAATGATGCTTTTTTCAATATCC
ATGCTTTAGC$_{49}$TAATGGAGGAACAGATGTAGGAGCAATTATCACAGCTGTAGATGCACA$_{22}$TTTTGCAAATATGCCTCAA
GTTAACTGGATGATAGCAGGGGATTTTAA$_{50}$CCGTGATCCTTCTACTATAACAAGT$_{23}$ACAGTGGATAGAGAATTAGCAAA
TAGAATTAGAGTGGTTTTTCCAACTAGCGCAACTCAAGCAAGCGGAGGGACTCTTGATTATGCAATTACAGGAAATTCAA
ATA$_{24}$GACAACAAACCTATACTC$_{12}$CACCGCTTTTAGCTGCGATTTTAATGCTTGCAAGTTTAAGATCTCATAT$_{25}$AGTTTC
AGATCATTTTCCAGTAAATTTTAGA$_{10}$AAATTTTAGGACATTTAATATGAAAAAAATTATTACTTTGTTTTTTATGTTTA
TAACTTTAGCCTTTGCAACTCCTA$_{74}$CTGGAGATTTGAAAGATTTTACCGAAATGGTTTCTATAAGAAGCTTAGAAACGG
GAATTTTTTTAAGCGCCTTTAGGGATACCTCAAAA$_{66}$GATCCTATTGATCAAAATTGGAATATTAAAGAAATTGTTTTAA
GCGATGAGTTAAAACAAAAAGATAAATTAGCTGATGAACTTCCTTTTGGTTATGTGCAATTTACAAATCCAAAAGAAAGC
GATCTTTGTTTAGCCATCTTAGAAGATGGAACCTTTGGAGCAAAATCTTGTCAAGATGATCTAAAAGATGGTAAATTAGA
AACTGTATTTTCTATAATGCCAACAACAACTTCAGCTGTGCAAATTCGTTCTTTAGTTTTGGAATCTGATGAATGTATAG
TAACTTTTTTTAATCCAAATATTCCTATACAAAAACGCTTTGGAA$_{8}$TAGC$_{67}$CCCTTGCACCCTAGATCCTATTTTTTTT
GCTGAAGTAAATGAACTAATGATTATAACCCCACCTTTAACAGCTGCTACCCCTT$_{75}$TAGAATAA

FIG. 17

C. coli cdt ORF

ATGCAAAAAATAAAATTAAGCCTAATGTTTTTGATTGTAACAATCATTTTTTTAGCTTGTTCTTCAAAAGAACAACAAAT
CAATCCTTTAGGAAGATCTTACGGTAAATTT$_{64}$AACGATAACGATCCTTTAAAACT$_{7}$TGGTTCAAAACCTACACCCCCTG
TCAAACAAAAAACACCAAGCTTGGTAGAAGGTAAAAAATTTCCCGCCATACCACTTGTCCCACCTGTAATCACTCCTAAT
ACCTTTAAAGGAGATAATGCCGTCAAAGGCCCATTGCCAAGGCTAAAATCTC$_{70}$CAAACGAATTTGCTTCAAATGCTTTA
TACGAAAACACAGGTATGGTAAGTGATTTTGTCACTATTATGAATCCTAATGGAGCATCTTTAACAATCTGGGCTTTAAA
TCCTGGCAATTGGATATGGGGATATAGTTTATTTGCTAGTAGACCTTTTGGAGATGCAAGAGCTTGGCAGCTTATTGAAT
TTCCAAACAATACAGTAATGATTAAAAATGCAAAAACATTTACTTGCTTAAACGCCTATAGAAATGGCATCGTTCATTAT
CCTTGTGATCAAACAAATTTTGCGCAGTTTTGGAGACTTTATC$_{71}$CGATGACTAATGGAGCTTATCAAATTCAAAATTTT
GCCACCCAACA$_{65}$ATGTATACAAACACCTGTTTCAAATGTAATGGAAGAATTTAATTTGAGCTTTTATAATATTTATTTA
ACCGATTGTTTGAAAGAAAAAGAAAAGAATTTGGATAGACAGTGGTATATAGGCGCTCCTATTTAATTTTTTCGCTATGA
AAGGAAGATAATGAAAAAAATAGTATTTTTGATTTTAAGTTTTAATGTATTATTTGCCGC$_{13}$TTTAGAAAATTACAACAC
CGGAACTTGGAATTTGCAAGGC$_{9}$TCATCAGCTGCAACTGAAAGCAAATGGAATGTTAGTATAAGACAACTCATAACCGGT
GCAAATCCTATGGATGTTTTAGCTGTTCAAGAAGCGGGGGTTTTACCTAGTACAGCTATGATGACTCCTAGACAGGTACA
ACCCGTGGGCGTGGGTATTCCTATACATGAATACATATGGAATTTAGGCTCTGTATCAAGACCTAGCTCTG$_{30}$TTTATAT
ATATTATTCTAGAGTGGATGTAGGAGCAAATCGTGTGAATTTAGCTATCGTTAGCAGAGTGCAAGCGGATGAAGTTTTTG
TTTTACCCCCTCCAACAGTTGCTTCAAGACCTATTATAGG$_{31}$CATACGCATAGGCAATGA$_{14}$TGCTTTTTTCAATATACAC
GCTCTAGCAAGTGGGGGAAATGACGCAGGAGCCATTGTCGCTGCT$_{32}$GTGGATATGTTTTTTAGAAATAGACCTGATATT
AATTGGATGATTTTAGGCGATTTTAATAGAGAATCAGGCGCCTTAGTAACCTTGCTAGATCCTGACTTAAGAGCACGCAC
TCG$_{33}$CGTAGTTGTTCCGCCTTCTT$_{36}$CTACGCAAACAAGTGGAAGAACGATTGATTATGCTATCACTGGAAATTCCAACA
CTGCAGCTTTATACAACCCACCACCGATAGTT$_{28}$GCGATTTTAGCTTTAGAAGGATTAAGAACCTTTTTGG$_{34}$CTTCAGAT
CATTTTCCTGTAAATTTTAGA$_{10}$AGACCTTAGGAGCTTAATATG$_{35}$AAAAAATTTTTTATTTTATTTTTTGCCCTTTTGAG
CTTTTTGAAAGCAGAGCCTAGCTTGGATGAATTAGCAGACTTTACTCCTATGTTTGCTATAAGATCTTTAGAAACAGGAA
TTTCTTTAAGTCCTTTTAGAAAAACTTCAAAA$_{66}$AGGTTAGAAGATCAAAATTGGTTTTTAAAAGAGATTGTAGCAAATG
ATGAGCTAAAAGCTAGGGATATGCACGCAAAAGA$_{76}$TTTGCCTTTTGGCTATGTTCAGTTTATAAGCCCTAGGGGCGATG
ATATATGCCTAGCTGTTTTAAGTGAAAAAAGTTTTGGCACCAAATCTTGCAAACAAGATTTGCAAGATGGAACAATGCAG
ACTATTTTTTCTATCATACCAATGACAAATGGTTCTATACAAATTAGATCTTTAACCAATGGTGGCAATCAATGCATGAG
CACTTTTCCTGACTCTAGTATCGCCATAGAAAATCGCTT$_{8}$TGGTTTAGG$_{67}$AGAATGCCTTTTGGATCGTTCTATCGTAA
CTGTATTAAGC$_{77}$AAACTTTTCTTTTTCTCCCCTGCTATAATCGAAGCAAGCGCAATTTACTAA

FIG. 18

C. fetus cdt ORF

ATGACTAAAATTATTTTCAAGCATATTAAAAATAGTCTTATTTTACTATTTTGTATCGCTCTTTTTAGTGCTTGCTCATC
AAAAACGACAAATGTAAGCACTC$_{72}$AAAAAATAAATCCATTAGGAAGCATTTTTGGCAAAACG$_{64}$GATGATCCAGATCCAC
TAAATTTAGGCGATTTTCCAACTCTTCTAACATCAAATTTTACAAATCCTATGCCGACTAGAACGCCATCGCCACTTAA
AAAAGTGGATTTGCCTGTAATGAACTCATTAACACATGGTCCGATGTTTTCAAGTGCTTTTAGTAAACCGGACTTGAATT
TCAAACAACCTACTATCAGTCTACAAGGTATCCCGCCTGATCTATTTGATAGAACAAGCGATTTTATGGTGATAATGGGT
GCAAACGGCGTTGTGATCACTATTTGGTACACATCTCCTGGAAACTGGTTATGGGGCTACTCGCTCTATGAAAGCGGCAA
TTTAGGAGGATATCGTGTTTGGCGTCTAATTTTACTACCAAATAATGAAGTCATGATAGTAAATTTCAACACTCGCACGA
CTTGCATAAATA$_{73}$CTTATAAAAACGGAGTAATTCACTCACCTTGCAATAAAGATAATCCTTTTCAGAAATTTACGTTTC
GTCCAATGACAAACGGAGCCGTACAAATTTATAACAAAGCTACTAATTGCG$_{65}$TGCTTGCAAACGCCTGTTAATAATCTA
TTCGGTTTTGACGTTTTTGGGGCGATAAATCTTACGACAAAATGCACTGATACTATCGATCAACAATGGTATTTGCTCCC
GCCGCCGCAAGTTGGAAGACTAT$_{15}$TTTATTAGGAGTAAAAATGCGAAATGTTATTATGATTATATTTATAGCAACTTTA
GGC$_{38}$TTTGCAAAACCAGAAGATTATAAAATTGCTACTTGGAATTTGCAAGGC$_{9}$AGTTCGGCTATAACCGAAAGCAAATGG
A$_{47}$ATATAAGCGTACGTCAAATAATTAGCGGTGAAAATCCAGCAGATATATTAGCCGTTCAAGAAGCAGGAAATTTACCT
CAAACCGCTCTTC$_{39}$CTACAGGTAGAAGCATAAATCAAGGCGGCACGATC$_{40}$GTAACTGAGCATTTATGGCAGCTAGGCAG
TATATCTAGACCGTTCCAA$_{41}$GTCTATATATATTATGCTCAAATCGACACAGGGGCAAATAGAGTAAATTTAGCAATCGT
TTCACGCATAAAAGCTGATGAAATCATCATCTTGCCGCCTCCT$_{42}$ACGGTAGCTTCTCGTCCGCTCATAGGTATAAGAAT
AGGAAACGACGTATTTTTCAACATACACGCTCTAGCAAATGGCGGAGTCGATGCTCCGGCGATAATAAA$_{16}$TTCAATATT
TGACAGATTTAGAAATATGCCAAATATCACTTGGATGATTTTAGGCGATTTTAACCGCTCACCTGAGAGTTTAAGA$_{43}$GG
AACTCTTGGATTAGAAACTC$_{44}$GCGTCAGAGTAACGTTTTTAACA$_{37}$CCTCCGGCGCCTACTCAAAGAAGCGGCGGAACGC
TTGACTGGGCTATAGTTGGAAACTCAGCCGGCGATCTTGTCCGAAC$_{45}$TACGCTTGTAGCAGTATTGATGCTAGCAAACC
TGCGGACTCACCTA$_{46}$GTTTCGGACCATTTTCCGGTAAATTTTAGA$_{10}$AAATTTGGAGATAACTAATGAAAGCTTTAGCAA
TAATATTTTTATTTGTAAGCATAAGTTTTGCAAACG$_{78}$AAAACATAACCGACGCTTTTCAAATACGCAATGCAAACACCG
GAATTCCTATAAATATAAAGCGATTTTCAGGG$_{66}$CAGTTTAATTACCAAAACTGGTTTTTAAATGATTTAGGAGTAGATC
CTAAGATAAAAAAAGTAGATAAATTTTCAAATTCTTTTCCTTTTGGATACGTGCAATTTCAAGTAGCAGCCGACGTAAAA
ATGTGCCTTCAGATCGCTCCTAGCGGATTTTTAGCACTAAAAAACTGCAAGCAAGACTACGATAGCGGAGAGTTTGAGAC
TATTTTTCAGATCATCCCTACAAGTAGTGGAGCTATGCAGCTACGATCACTAGTTCTAAAAACAAACGAGTGCTTAGGAA
CATTTGAAAATCCAAAC$_{79}$GTGCCGATCGAAGATAGAGTAGGACTAGT$_{67}$ACGCTGCGTTTTAGAATTTTTTGTCGACATA
GAGCCTAAACAACTTTTTGTATTTTCACCGCCGCTTAGTGAAGCTAAGGTAATTAGATAA

FIG. 19